

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method for selectively enriching for a microorganism able to metabolise a test substrate, and/or the enrichment of an enzyme involved in the metabolism of the test substrate, the method comprising the steps of
 - a) providing a population of microorganisms in a vessel,
 - b) feeding fluid into the vessel at a controlled flow rate commencing with an initial flow rate, the fluid comprising a nutrient medium and, for at least part of the feed period, the test substrate,
 - c) producing a signal indicative of the level of a metabolism indicator which is a terminal electron acceptor, over the time-frame of the enrichment, wherein the signal is produced from a probe that takes a reading in the vessel, and
 - d) providing an output showing the change in level of the metabolism indicator which is based on the signal of the probe to enable assessment of selective enrichment of a microorganism that metabolises the test substrate, and/or the enrichment of an enzyme produced by the microorganism that is involved in the metabolism of the test substrate.
2. The method of claim 1, wherein the output is produced electronically directly from the signal, such that the output is provided on-line.
3. The method of claim 1 or claim 2, wherein the method further comprises presetting conditions to be met by the signal output to result in a change in the fluid flow rate, and changing the flow rate at which fluid is fed into the vessel when the conditions are met, wherein the preset conditions are a combination of a predetermined period of time and a preset value range within which the signal must remain for the predetermined period of time.